

LOW WORK FUNCTION MATERIAL

ABSTRACT

5 The present invention is directed toward methods for incorporating low work
function metals and salts of such metals into carbon nanotubes for use as field
emitting materials. The present invention is also directed toward field emission
devices, and associated components, comprising treated carbon nanotubes that have,
incorporated into them, low work function metals and/or metal salts, and methods for
making same. The treatments of the carbon nanotubes with the low work function
10 metals and/or metal salts serve to improve their field emission properties relative to
untreated carbon nanotubes when employed as a cathode material in field emission
devices.

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